This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 - 5 (Cancelled)

Claim 6 (currently amended) An integrated process for the separation of air by cryogenic distillation and liquefaction of natural gas in which at least part of the refrigeration required to liquefy the natural gas is derived from at least one cryogenic air distillation plant comprising a main heat exchanger and distillation columns, wherein the natural gas liquefies by indirect heat exchange in a heat exchanger with a cold fluid, the cold fluid being sent to the heat exchanger at least partially in liquid form and undergoing at least a partial vaporization in the heat exchanger; wherein the natural gas is liquefied within the main heat exchanger of the cryogenic air distillation plant, in which feed air for the cryogenic air distillation plant is cooled to a temperature suitable for distillation and the cold fluid is at least one liquid stream, enriched in at least one of oxygen, nitrogen and argon with respect to air, which vaporises in the main heat exchanger; wherein all the air to be separated in the cryogenic air distillation plant is cooled in the main heat exchanger, and ~~The process according to Claim 5,~~ wherein the natural gas is liquefied by heat exchange in an additional heat exchanger other than the main heat exchanger with at least one cold fluid which has previously been cooled by a vaporising liquid in the main heat exchanger of at least one air distillation plant.

Claim 7 (original) The process according to Claim 6, wherein the natural gas is liquefied by means of a closed circuit in which a cold fluid flows, said cold fluid being warmed by heat exchange with the liquefying vaporising natural gas and cooled by heat exchange in the main heat exchanger.

Claim 8 (original) The process according to Claim 6, wherein the cold fluid is chosen from the group comprising nitrogen, argon, CF4, HCF3, methane, ethane, ethylene and propane.

Claim 9 (original) The process according to Claim 6, wherein gaseous nitrogen from the cryogenic air distillation plant is sent to the additional heat exchanger.

Claim 10 (cancelled)

Claim 11 (currently amended) An integrated process for the separation of air by cryogenic distillation and liquefaction of natural gas in which at least part of the refrigeration required to liquefy the natural gas is derived from at least one cryogenic air distillation plant comprising a main heat exchanger and distillation columns, wherein the natural gas liquefies by indirect heat exchange in a heat exchanger with a cold fluid, the cold fluid being sent to the heat exchanger at least partially in liquid form and undergoing at least a partial vaporization in the heat exchanger ~~The process according to Claim 1~~, wherein all of the refrigeration required to liquefy the natural gas is derived from a single cryogenic air distillation plant, the columns of the plant, the main heat exchanger and the further heat exchanger being situated within a single cold box.

Claim 12 (currently amended) An integrated process for the separation of air by cryogenic distillation and liquefaction of natural gas in which at least part of the refrigeration required to liquefy the natural gas is derived from at least one cryogenic air distillation plant comprising a main heat exchanger and distillation columns, wherein the natural gas liquefies by indirect heat exchange in a heat exchanger with a cold fluid, the cold fluid being sent to the heat exchanger at least partially in liquid form and undergoing at least a partial vaporization in the heat exchanger ~~The process according to Claim 1~~, wherein part of the refrigeration required to liquefy the natural gas is derived from at least two cryogenic air

distillation plants, each comprising a main heat exchanger and distillation columns, said main heat exchanger and distillation columns being within the cold box, the part of the refrigeration required to liquefy the natural gas being produced by vaporisation of at least one liquid stream, enriched in oxygen, nitrogen or argon, produced by one of the distillation columns, and the natural gas liquefies by heat exchange in a further heat exchanger by heat exchange with a cold fluid removed from each cryogenic air distillation plant.

Claim 13 (currently amended) An integrated process for the separation of air by cryogenic distillation and liquefaction of natural gas in which at least part of the refrigeration required to liquefy the natural gas is derived from at least one cryogenic air distillation plant comprising a main heat exchanger and distillation columns, wherein the natural gas liquefies by indirect heat exchange in a heat exchanger with a cold fluid, the cold fluid being sent to the heat exchanger at least partially in liquid form and undergoing at least a partial vaporization in the heat exchanger ~~The process according to Claim 1~~, wherein the natural gas prior to undergoing indirect heat exchange with said cold fluid is at least partially precooled at a temperature below 0°C by indirect heat exchange with at least one fluid not derived from any cryogenic air distillation plant.

Claim 14 (original) The process according to Claim 13, wherein said fluid(s) not derived from any cryogenic air distillation plant comprises propane.

Claims 15-19 (cancelled)

Claim 20 (currently amended) An integrated process for the separation of air by cryogenic distillation and liquefaction of natural gas in which at least part of the refrigeration required to liquefy the natural gas is derived from at least one cryogenic air distillation plant comprising a main heat exchanger and distillation columns, wherein the natural gas liquefies by indirect heat exchange in a heat

exchanger with a cold fluid, the cold fluid being sent to the heat exchanger at least partially in liquid form and undergoing at least a partial vaporization in the heat exchanger; wherein the natural gas is liquefied within the main heat exchanger of a/the cryogenic air distillation plant, in which feed air for the cryogenic air distillation plant is cooled to a temperature suitable for distillation and the cold fluid is at least one liquid stream, enriched in at least one of oxygen, nitrogen and argon with respect to air, which vaporises in the main heat exchanger; wherein all the air to be separated in the cryogenic air distillation plant is cooled in the main heat exchanger; ~~The apparatus according to Claim 5~~ comprising an additional heat exchanger other than the main heat exchanger and means for sending the natural gas to be liquefied and at least one cold fluid which has previously been cooled by a vaporising liquid in the main heat exchanger of at least one air distillation plant to the additional heat exchanger.

Claim 21 (original) The apparatus according to Claim 20 comprising a closed circuit passing through the main and additional heat exchangers in which the at least one cold fluid flows.

Claim 22 (original) The apparatus according to Claim 20 comprising means for sending gaseous nitrogen from the at least one cryogenic air distillation plant to the additional heat exchanger.

Claim 23 (cancelled)

Claim 24 (currently amended) Integrated apparatus for the separation of air by cryogenic distillation and liquefaction of natural gas in which at least part of the refrigeration required to liquefy the natural gas is derived from at least one cryogenic air distillation plant comprising a main heat exchanger and distillation columns, comprising means for sending natural gas and a cold fluid at least partially in liquid form to a heat exchanger, means for removing liquefied natural gas from the heat exchanger and means for removing at least partially vaporised cold fluid from the heat exchanger; ~~The apparatus according to Claim 15~~ wherein all of the refrigeration required to liquefy the natural gas is derived from a single cryogenic air distillation plant, the columns of the plant, the main heat exchanger and the further heat exchanger being situated within a single cold box.

Claim 25 (currently amended) Integrated apparatus for the separation of air by cryogenic distillation and liquefaction of natural gas in which at least part of the refrigeration required to liquefy the natural gas is derived from at least one cryogenic air distillation plant comprising a main heat exchanger and distillation columns, comprising means for sending natural gas and a cold fluid at least partially in liquid form to a heat exchanger, means for removing liquefied natural gas from the heat exchanger and means for removing at least partially vaporised cold fluid from the heat exchanger; ~~The apparatus according to Claim 15~~ wherein part of the refrigeration required to liquefy the natural gas is derived from at least two cryogenic air distillation plants, each comprising a main heat exchanger and distillation columns, said main heat exchanger and distillation columns being within the cold box, the part of the refrigeration required to liquefy the natural gas being produced by vaporisation of at least one liquid stream, enriched in oxygen, nitrogen or argon, produced by one of the distillation columns, and the natural gas liquefies by heat exchange in a further heat exchanger by heat exchange with a cold fluid removed from each cryogenic air distillation plant.

Claim 26 (currently amended) Integrated apparatus for the separation of air by cryogenic distillation and liquefaction of natural gas in which at least part of the refrigeration required to liquefy the natural gas is derived from at least one cryogenic air distillation plant comprising a main heat exchanger and distillation columns, comprising means for sending natural gas and a cold fluid at least partially in liquid form to a heat exchanger, means for removing liquefied natural gas from the heat exchanger and means for removing at least partially vaporised cold fluid from the heat exchanger; ~~The apparatus according to Claim 15~~ comprising means for precooling the natural gas prior to undergoing indirect heat exchange with said cold fluid.

Claim 27 (original) The apparatus according to Claim 26 wherein said means for precooling comprises a heat exchanger and means for sending propane to the heat exchanger.

Claims 28-35 (cancelled)

Claim 36 (currently amended) An integrated process for the separation of air by cryogenic distillation and liquefaction of natural gas (LNG) which comprises the steps of:

i. providing at least part of the refrigeration from at least one cryogenic air distillation plant;

ii. liquefying the natural gas by indirect heat exchange in a heat exchanger with a cold fluid, and

wherein said air distillation plant comprises:

i. a main heat exchanger; and

ii. at least one distillation column; ~~The process according to Claim 28,~~ wherein an additional heat exchanger liquefies the natural gas with at least one pre-cooled fluid from the main heat exchanger.

Claim 37 (original) The process according to Claim 36, wherein the process of the main heat exchanger comprises the steps of:

i. flowing cold fluid within a closed circuit;

ii. cooling said fluid; and

iii. warming said fluid by heat exchange with the liquefying vaporizing natural gas.

Claim 38 (original) The process according to Claim 36, wherein said cold fluid comprises at least one component selected from the group consisting of nitrogen, argon, CF4, HCF3, methane, ethane, ethylene and propane.

Claim 39 (currently amended) An integrated process for the separation of air by cryogenic distillation and liquefaction of natural gas (LNG) which comprises the steps of:

i. providing at least part of the refrigeration from at least one cryogenic air distillation plant;

ii. liquefying the natural gas by indirect heat exchange in a heat exchanger with a cold fluid,

iii. cooling the feed air to a temperature suitable for distillation; and

iv. vaporizing the cold fluid that comprises a liquid stream enriched in at least one component selected from the group consisting of oxygen, nitrogen and argon, and

wherein said air distillation plant comprises:

i. a main heat exchanger; and

ii. at least one distillation column; ~~The process according to Claim 34,~~ wherein gaseous nitrogen is sent from the cryogenic air distillation plant to the additional heat exchanger.

Claims 40-41 (cancelled)

Claim 42 (currently amended) An integrated process for the separation of air by cryogenic distillation and liquefaction of natural gas (LNG) which comprises the steps of:

i. providing at least part of the refrigeration from at least one cryogenic air distillation plant;

ii. liquefying the natural gas by indirect heat exchange in a heat exchanger with a cold fluid, and

wherein said air distillation plant comprises:

i. a main heat exchanger; and

ii. at least one distillation column; ~~The process according to Claim 28,~~ wherein part of the refrigeration required to liquefy the natural gas is derived from at least two cryogenic air distillation plants, wherein each plant comprises:

i. main heat exchanger;

ii. at least one distillation column; and

iii. additional heat exchanger,

wherein said main heat exchanger provides at least part of the refrigeration required to liquefy the natural gas by the vaporization of at least one liquid stream, enriched in oxygen, nitrogen or argon, produced by one of the distillation columns, and

wherein said additional heat exchanger provides at least another part of the refrigeration by exchanging heat with a cold fluid removed from each cryogenic air distillation plant, whereby liquefying the natural gas.

Claim 43 (currently amended) An integrated process for the separation of air by cryogenic distillation and liquefaction of natural gas (LNG) which comprises the steps of:

i. providing at least part of the refrigeration from at least one cryogenic air distillation plant;

ii. liquefying the natural gas by indirect heat exchange in a heat exchanger with a cold fluid, and

wherein said air distillation plant comprises:

i. a main heat exchanger; and

ii. at least one distillation column; ~~The process according to Claim 28,~~ wherein the natural gas prior to undergoing indirect heat exchange with said cold fluid is at least partially precooled to a temperature below 0°C by indirect heat exchange with at least one fluid not derived from any cryogenic air distillation plant.

Claim 44 (original) The process according to Claim 43, wherein said fluid comprises propane.

Claims 45-50 (cancelled)

Claim 51 (currently amended) An integrated apparatus for the separation of air by cryogenic distillation and liquefaction of natural gas which comprises:

i. at least one cryogenic air distillation plant that provides part of the refrigeration; and

ii. a heat exchanger with a cold fluid that liquefies natural gas by indirect heat exchange; ~~The apparatus according to Claim 45,~~ wherein

~~i.~~ iii the apparatus comprises means for sending the natural gas to be liquefied to the main heat exchanger of the cryogenic air distillation plant; and

~~ii.~~ iv the cold fluid is at least one liquid stream, enriched in at least one component selected from the group consisting of oxygen, nitrogen and argon.

Claim 52 (cancelled)

Claim 53 (currently amended) An integrated apparatus for the separation of air by cryogenic distillation and liquefaction of natural gas which comprises:

i. at least one cryogenic air distillation plant that provides part of the refrigeration; and

ii. a heat exchanger with a cold fluid that liquefies natural gas by indirect heat exchange; ~~The apparatus according to Claim 45,~~

wherein said apparatus further comprises an additional heat exchanger which receives the natural gas to be liquefied and at least one pre-cooled fluid from the main heat exchanger.

Claim 54 (original) The apparatus according to Claim 53, wherein said main and additional heat exchangers contain a closed circuit that permits at least one cold fluid to flow.

Claim 55 (original) The apparatus according to Claim 53, wherein said apparatus provides a means for sending gaseous nitrogen from at least one cryogenic air distillation plant to the additional heat exchanger.

Claims 56-59 (cancelled)

Claim 60 (currently amended) An integrated apparatus for the separation of air by cryogenic distillation and liquefaction of natural gas which comprises:

i. at least one cryogenic air distillation plant that provides part of the refrigeration; and

ii. a heat exchanger with a cold fluid that liquefies natural gas by indirect heat exchange; ~~The apparatus according to Claim 45,~~

wherein the apparatus provides the means for natural gas to be pre-cooled prior to undergoing indirect heat exchange with said cold fluid.

Claim 61 (currently amended) An integrated apparatus for the separation of air by cryogenic distillation and liquefaction of natural gas which comprises:

i. at least one cryogenic air distillation plant that provides part of the refrigeration; and

ii. a heat exchanger with a cold fluid that liquefies natural gas by indirect heat exchange; ~~The apparatus according to Claim 45,~~ wherein said heat exchanger provides a means for precooling and sending propane to the heat exchanger.

Claim 62 (cancelled)